

**Abstract of the Disclosure**

A plurality of Raman amplifiers are positioned on a transmission line over which a multi-wavelength light 5 is transmitted. Each of the Raman amplifiers uses a plurality of pump lights  $\lambda_1$  through  $\lambda_4$ . When a fault occurs in a pump light source producing the pump light  $\lambda_3$  in a particular Raman amplifier among the plurality of Raman amplifiers, the power of the pump light  $\lambda_3$  is 10 raised in another or other Raman amplifiers.